

Enterprise Architecture Standard

Statewide Active Directory Standard Configuration

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Introduction

The results of this effort represent the development of Active Directory (AD) standards that will enable the CA.Mail system hosted by the Executive Branch data center, Office of Technology Services (OTech) and the California Email Service (CES) cloud solution to coexist, creating a single common directory structure across the Executive Branch.

CES will exist in the Microsoft cloud in an environment solely dedicated for use by the State of California. OTech will maintain the AD, ensuring synchronization between CES, department or Agency domain controllers and the CES environment.

In addition, the CES environment requires that attributes (a total of six) are set aside for exclusive use by CES. These six attributes will have to be the same for every Department or Agency. These attributes, Extension Attributes 4, 5, 7, 8, 10, & 12, are as follows:

- **Extension Attribute 4** – AD attribute name and value used to indicate that the user has a mailbox in another forest or mail system.
- **Extension Attribute 5** – AD attribute name and value used to flag resource mailboxes (RBA).
- **Extension Attribute 7** – AD attribute name and value used to indicate that the Microsoft Online (MSO) hosted mailbox should be disconnected.
- **Extension Attribute 8** – AD attribute name reserved to indicate Mailbox Type roles and characteristics.
- **Extension Attribute 10** – AD attribute name used to store Online Voice configuration.
- **Extension Attribute 12** – AD attribute name used to indicate which Office Communications Server (OCS) features to enable for users.

Attribute Standards Requirements

The following are user object Lightweight Directory Access Protocol (LDAP) attributes ordered as presented “Active Directory Users and Computers” (ADUC) Microsoft Management Console (MMC). Some attributes are not natively present in ADUC and are noted.

CN – (Full) Canonical Name

ADUC Presence: Name column *or* New User, Full Name *or* Right click, Rename, Full Name *or* general tab

Outlook GAL: Not present

Description: This attribute is automatically populated from “First name” and “Last name” in the New User wizard but can be discretely edited. It is also known as the “Relative Distinguished Name” (RDN) and used to construct the “Distinguished Name” (DN).

Format: 1-64 characters

Requirements: ***Mandatory*** for consistency with “Display name” and unique in the Agency

Standard: {Last name}, {First name}@department *or*;
{Last name}, {First name} {Middle initial}@department *or*;
{Last name}, {First name} ({Business unit or team})@department; *or*
{Last name}{#}, {First name} ({Business unit or team})@CDCR

Example: Doe, John@CDCR *or*;
Doe, John K.@CDCR *or*;
Doe, John (EIS)@CDCR *or*
Doe2, John (EIS)@CDCR

Notes: It is used to generate the “Display name” in the account creation process, therefore has the same standard; Adding “{Middle initial}” and/or “({Business unit or team})” are options to keep this attribute unique in the agency. Please see section concerning name attributes.

givenName – First name

ADUC Presence: New User, First name *or* General tab, First name

Outlook GAL: General tab, First

Description: First name of the user

Format: 1-64 characters

Requirements: ***Recommended***

Standard: {First name}

Example: John

Notes: It is used to generate the “Full name” and “Display name” in the account creation process. Please see section concerning name attributes.

initials - Initials

ADUC Presence: New User, Initials *or* General tab, Initials

Outlook GAL: General tab, Initials

Description: Initials of the user

Format: 1-6 characters

Requirements: ***Optional***

Standard: {Middle initial}

Example: K

Notes: Some users may not have a middle name, therefore may be omitted. Please see section concerning name attributes.

sn – Last name

ADUC Presence: New User, Last name *or* General tab, Last name

Outlook GAL: General tab, Last

Description: Last name of the user

Format: 1-64 characters

Requirements: *Recommended*

Standard: {Last name}

Example: Doe

Notes: It is used to generate the “Full name” and “Display name” in the account creation process.

displayName – Display name

ADUC Presence: General tab, Display name

Outlook GAL: Name or General tab, Display

Description: This attribute is automatically populated “Full name” in the “New User” wizard but can be discretely edited.

Format: 1-256 characters

Requirements: *Mandatory*

Standard: {Last name}, {First name}@department *or*
{Last name}, {First name} {Middle initial}.@department *or*
{Last name}, {First name} ({Business unit or team})@department *or*
{Last name}{#}, {First name}@department

Example: Doe, John@CDCR *or*;
Doe, John K.@CDCR *or*;
Doe, John (EIS)@CDCR

Notes: It is copied from the “Full name” in the account creation process. The “@department” suffix is required to distinguish users from other departments and agencies in the Statewide GAL. Adding “[Middle initial]” and/or “({Business unit or team})” represents options to keep this attribute unique within a department and/or agency.

mailNickname – Alias

ADUC Presence: Exchange General tab, Alias

Outlook GAL: General tab, Alias

Description: Mail nickname used by Microsoft Exchange

Format: 1-64 characters

Requirements: *Mandatory* per system for mail enabled users

Standard: <DEPT>+SamAccountName

Example: CDCRJohn.Doe *or*;
CDCRJohn K.Doe *or*;
CDCRJohn.Kevin.Doe *or*
CDCRJohn.K.Doe2

physicalDeliveryOfficeName – Office

ADUC Presence: General tab, Office

Outlook GAL: General tab, Office

Description: Contains the office location in the user's place of business.

Format: 1-128 characters
<Site>,<Workspace> With a comma delimiter

Requirements: *Optional*

Standard: Data Dictionary

Example: Aerojet, Building 1960, Cubicle 38

Notes: Data Dictionary to be developed by local departments with business unit input. Note: Workspace is not required, can be site name only if desired.

mail – E-mail (Primary SMTP Address)

ADUC Presence: General tab, E-mail

Outlook GAL: E-mail Addresses tab, E-mail Addresses

Description: E-mail address of the user.

Format: 1-256 characters

Requirements: *Mandatory*

Standard: {First name}.{Last name}@department.ca.gov or;
{First name}.{Last name}#{@department.ca.gov or;
{First name}.{Middle initial}.{Last name}@department.ca.gov or;
{First name}.{Middle name}.{Last name}@department.ca.gov or;
{First name}.{Middle initial}.{Last name}#{@department.ca.gov

Example: John.Doe@cdcr.ca.gov or
John.K.Doe@cdcr.ca.gov or;
John.Kevin.Doe@cdcr.ca.gov or;
John.K.Doe2@cdcr.ca.gov

Notes: When an e-mail enabled account is created, this field is automatically populated with a generated SMTP “proxyAddress”. See notes for “proxyAddress” as this field should not be edited directly.

proxyAddresses – E-mail Addresses

ADUC Presence: E-mail Addresses tab

Outlook GAL: E-mail Addresses tab, E-mail Addresses

Description: E-mail address of the user.

Format: 1-256 characters

Requirements: *Mandatory* per system, ISO, Agency and OTech for all mail enabled users and unique in the state.

Standard: {First name}.{Last name}@cdcr.ca.gov or
{First name}.{Middle initial}.{Last name}@cdcr.ca.gov or
{First name}.{Middle name}.{Last name}@cdcr.ca.gov or
{First name}.{Middle initial}.{Last name}#{@cdcr.ca.gov

Example: John.Doe@cdcr.ca.gov or
JohnK.Doe@cdcr.ca.gov or
John.Kevin.Doe@cdcr.ca.gov or
John.K.Doe2@cdcr.ca.gov

Notes: When an e-mail enabled account is created, the SMTP “proxyAddress” is automatically generated and set primary: {First name}.{Last name}@cdcr.ca.gov. An additional address is also generated based on the “samAccountName” if the local-part of the first address is different from the “samAccountName”. This standard is for the Primary Proxy address only. This will allow agencies to keep legacy or secondary addresses.

streetAddress – Street

ADUC Presence: Address tab, Street

Outlook GAL: General tab, Address

Description: Users work street address

Format: 1-1024 characters

Requirements: *Optional*

Standard: Physical work street address according to USPS Postal Addressing Standards¹ but using proper capitalization.

Example: 1960 Alabama Ave

I - City

ADUC Presence: Address tab, City

Outlook GAL: General tab, City

Description: User's work street address

Format: 1-128 characters

Requirements: *Optional*

Standard: Physical work city address according to USPS Postal Addressing Standards¹ but using proper capitalization.

Example: Rancho Cordova

st – State/province

ADUC Presence: Address tab, State/province

Outlook GAL: General tab, State

Description: User's work state address

Format: 1-128 characters

Requirements: *Optional*

Standard: State address according to USPS Postal Addressing Standards¹

Example: CA

postalCode – Zip/Postal Code

ADUC Presence: Address tab, Zip/Postal Code

Outlook GAL: General tab, Zip code

Description: Physical work ZIP code according to USPS Postal Addressing Standards¹.

Format: 1-40 characters

Requirements: *Optional*

Standard: Street address according to USPS Postal Addressing Standards¹

Example: 95742-6401

Notes: This should be the user's physical work ZIP code without regard to availability of mail service to this location. For users that do not have a physical work location, this should be the business unit/team ZIP code.

title – Title

ADUC Presence: Organization tab, Title
Outlook GAL: General tab, Title
Description: User's position class name or employment status
Format: 1-64 characters
Requirements: ***Recommended***
Standard: User's position class as published by the State Personnel Board if non-appointed state employee, Appointment title, and employment status for all others.
Example: Systems Software Specialist I (Technical)
Undersecretary
Retired Annuitant, Contractor
Notes: Data dictionary for this attribute will need to be developed by each Agency or Department based on HR and SPB data.

department – Department

ADUC Presence: Organization tab, Department
Outlook GAL: General tab, Department
Description: User's Department
Format: 1-64 characters
Requirements: ***Required***
Standard: Department name abbreviation
Example: CDCR
CPHCS
Notes: This field should match the department's acronym just as it is in the suffix of the display name field. Departments must ensure a unique identifier. Please reference the Department Acronym Alias List included as Attachment 1 to ensure uniqueness.

manager – Manager

ADUC Presence: Organization tab, Manager, Name
Outlook GAL: Organization tab, Manager
Description: User's manager
Format: Directory object
Requirements: ***Optional***
Notes: SharePoint usage can be affected by not filling out this attribute. FIM Workflows are affected.

directReports – Direct Reports

ADUC Presence: Organization tab, Direct reports
Outlook GAL: Organization tab, Direct reports
Description: User's direct reports
Format: Directory object
Requirements: ***Optional***
Notes: Dependent on the "manager" attribute.

TelephoneNumber – Telephone number

ADUC Presence: General tab, Telephone number

Outlook GAL: General tab, Phone

Description: The user's primary telephone number.

Format: 1-64 characters

Requirements: *Optional*

Standard: {area code}-{exchange}-{subscriber} x {extension}

Example: 916-324-7789 x 1234

Notes: This should be populated with a state issued phone number at which the user can be reached. It can be populated with the user's business unit/team phone number if they were not assigned their own telephone number. Phone number format must contain "-" or dashes separating the digits in the telephone number.

mobile – Mobile

ADUC Presence: Telephones tab, Mobile

Outlook GAL: Phone/Notes tab, Mobile

Description: State issued mobile number

Format: 1-64 characters

Requirements: *Optional* per user's manager or business unit policy

Standard: {area code}-{exchange}-{subscriber} x {extension}

Example: 916-324-7789 x 1234

Notes: This may be populated with a state issued mobile phone number at which the user can be reached. An assistant's mobile phone number may also be used. This should not contain any state employee's personal phone numbers. Phone number format must contain "-" or dashes separating the digits in the telephone number.

facsimileTelephoneNumber – Fax

ADUC Presence: Telephones tab, Fax

Outlook GAL: Phone/Notes tab, Fax

Description: Facsimile number

Format: 1-64 characters

Requirements: *Optional*

Standard: {area code}-{exchange}-{subscriber} x {extension}

Example: 916-324-7789 x 1234

Notes: This may be populated with a state issued fax phone number at which the user can be reached. An assistant's fax phone number may also be used. This should not contain any state employee's. Phone number format must contain "-" or dashes separating the digits in the telephone number.

Conference / Resource Rooms / Resource Objects

Agencies and Departments may keep their nomenclature regarding Conference, Resource Rooms, & Resource objects. They will need to simply add their Department or Agency “short name” in the front of it.

Requirements: *Mandatory*

Standard: {DEPT/AGENCY} Resource Name

Example: CIO Cannery Conference Room Maple

In this example the actual standard at OTech is “Cannery Conference Room Maple”, by adding “CIO”, it designates that it is a resource belonging to CIO.

Distribution Lists

Requirements: *Mandatory*

Standard: {DEPT/AGENCY} List Name

Example: CIO Cannery Supervisors

Notes: Department or Agency must put the value from “Department” attribute in front of any Distribution lists.

Agency/Department Self-Defined Attributes:

The following attributes in this section refer to “Agency or Department” self-defined values:

samAccountName – User logon name (pre-Windows 2000)

Undefined attribute. Agency discretion for usage.

userPrincipleName – User logon name

Undefined attribute. Agency discretion for usage.

Description – Description

Undefined attribute. Agency discretion for usage.

WWWHomePage – Web page

Undefined attribute. Agency discretion for usage.
This is displayed in the GAL

info – Notes

Undefined attribute. Agency discretion for usage.
This is displayed in the GAL

company – Company

Optional
Recommend: Agency Name

Authorities

Section 11545 of the Government Code (b) The duties of the Secretary of the Technology Agency shall include, but are not limited to, all of the following: (2) Establishing and enforcing state information technology strategic plans, policies, standards, and enterprise architecture.

Implementation

Changes and variances to this EA Standard may be proposed using the Compliance Component Tools in Section 3.2.2 of the [Enterprise Architecture Developers Guide](#), and by following the EA Compliance Package submittal instructions in Section 5.2. Additional detail is also included in Section 4.1 within the “Compliance Components Modification” sub-section. The [Enterprise Architecture Developers Guide](#) is available in Section 58A of the [Statewide Information Management Manual](#).

Department Acronym Alias List

Department	Department Alias	Email Domain
ABC Appeals Board	ABC Appeals	
Agricultural Labor Relations Board	ALRB	
Air Resources Board	ARB	arb.ca.gov
Atascadero State Hospital	ASH	
Baldwin Hills Conservancy		
Board of Chiropractic Examiners	CHIRO	
Board of Pilot Commissioners	BOPC	
Business Transportation and Housing Agency	BTH	
CalFed Bay-Delta Program (Calwater)	CalWater	
California African American Museum		
California Board of Accountancy	CBA	
California Coastal Commission	Coastal	
California Conservation Corps	CCC	
California Department of Corrections and Rehabilitation	CDCR	cdcr.ca.gov
California Department of Pesticide Regulation	CDPR	
California Emergency Management Agency		
California Energy Commission	Energy	
California Film Commission	CFC	ffc.ca.gov
California Highway Patrol	CHP	chp.ca.gov
California Integrated Waste Management Board	CIWMB	
California Medical Assistance Commission	CMAC	
California Natural Resources Agency	CNRA	
California Science Center		
California State Lands Commission	SLC	
California State Library	Library	
California Tahoe Conservancy	CTC	
California Unemployment Insurance Appeals Board	CUIAB	
California Workforce Investment Board	CWIB	
Canyon Springs Community Facility	CSCF	
Child Welfare Services (OSI)	OSI-CWS	
Coachella Valley Mountains Conservancy		
Coalinga State Hospital	CSH	
Colorado River Board of California		
Commission on Peace Officer Standards and Training	POST	
Commission on Teacher Credentialing	CTC	
Contractors State License Board	CSLB	
Delta Protection Commission	Delta	
Department of Child Support Services (Counties)	DCSS	
Department of Aging	DOA	
Department of Alcohol and Drug Programs	ADP	
Department of Alcoholic Beverage Control	ABC	
Department of Boating and Waterways	DBW	
Department of Child Support Services	DCSS	
Department of Community Services and Development	DCSD	
Department of Conservation	DOC	
Department of Consumer Affairs	DCA	dca.ca.gov

Department Acronym Alias List

Department	Department Alias	Email Domain
Department of Corporations	DOC	
Department of Developmental Services (Encryption)	DDS	
Department of Fair Employment and Housing	DFEH	
Department of Finance	DOF	
Department of Financial Institutions	DFI	
Department of Fish and Game	DFG	
Department of Food and Agriculture	CDFA	cdfa.ca.gov
Department of Forestry and Fire Protection	CalFire	
Department of General Services	DGS	dgs.ca.gov
Department of Health Care Services	DHCS	
Department of Industrial Relations	DIR	
Department of Managed Health Care	DMHC	
Department of Mental Health (HQ)	DMH	
Department of Motor Vehicles	DMV	dmv.ca.gov
Department of Parks and Recreation	Parks	
Department of Personnel Administration	DPA	
Department of Prison Health Care Services	CPHCS	
Department of Public Health	CDPH	
Department of Real Estate	DRE	
Department of Rehabilitation	DOR	
Department of Resources Recycling and Recovery	CalRecycle	
Department of Social Services	DSS+SCD	
Department of Toxic Substances Control	DTSC	
Department of Transportation	DOT	
Department of Veterans' Affairs	VA	cdva.ca.gov
Department of Water Resources	DWR	
Emergency Medical Services Authority	EMSA	
Employment Development Department	EDD	
Employment Training Panel	ETP	
EPA Office of the Secretary		
Fair Employment and Housing Commission	FEHC	
Fairview Developmental Center	FDC	
Financial Information Systems for California	FISCAL	
Franchise Tax Board	FTB	ftb.ca.gov
Health and Human Services Agency		
Housing and Community Development	HCD	
Housing and Finance Agency		
Infrastructure and Economic Development Bank		
Labor and Workforce Development Agency	LWDA	
Lanterman Developmental Center	LDC	
Managed Risk Medical Insurance Board	MRMIB	
Medical Board of California	MBC	
Metropolitan State Hospital	MSH	
Napa State Hospital	NSH	
Native American Heritage Commission		
Natural Resources Agency Secretary Office		

Department Acronym Alias List

Department	Department Alias	Email Domain
Office of Administrative Law	OAL	
Office of Environmental Health Hazard Assessment	OEHHA	
Office of Homeland Security	OHS	
Office of Privacy Protection		
Office of Real Estate Appraisers		
Office of Statewide Health Planning and Development	OSHPD	
Office of System Integration	OSI	
Office of Technology Services (OTech)	OTECH / OCIO	
Office of the Secretary of Education		
Office of the State Public Defender	OSPD	
Office of Traffic Safety	OTS	
Patton State Hospital	PSH	
Placer County Department of Child Support Services	PLDCSS	
Porterville Developmental Center	PDC	
Postsecondary Education Commission	CPEC	
Prison Industry Authority		
Public Safety Communications Division (PSCD)		
Salinas Valley Psychiatric Program	SVPP	
San Diego River Conservancy		
San Francisco Bay and Development Commission		
San Francisco Bay Area Conservation and Development Commission	BCDC	
San Gabriel/Lower LA River/Mtns Conservancy		
San Joaquin River Conservancy		
Santa Monica Mountains Conservancy		
Seismic Safety Commission		
Sierra Nevada Conservancy	SNC	
Sonoma Developmental Center	SDC	
State and Consumer Services Agency	SCSA	
State Coastal Conservancy	SCC	
State Personnel Board	SPB	
State Water Resources Control Board	Waterboards	
Strategic Growth Council	SGC	
Vacaville Psychiatric Program	VPP	
Victims Compensation Government Claims Board	VCGCB	